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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,050

Applicant(s)

CHICKERING ET AL.

Examiner

Akiba K. Robinson-Boyce

Art Unit

3639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of Claims***

1. Due to communications filed 12/28/05, the following is a final office action. Claim 12 is cancelled. Claims 1-11 and 13-30 are pending in this application and have been examined on the merits. The previous rejection has been maintained.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9 and 28 are rejected under 35 U.S.C. 103(a) as being obvious over Grosser et al (US 6,826,552), and in further view of Garg (US 6,044,357).

As per claim 1, Grosser et al discloses:

Employing a component to identify the sub-population to solicit and a non-solicited sub-population by using a computer-implemented decision theoretic model, (Col. 31, lines 51-55, advocate applying choices to user, col. 32, lines 5-7, shows choices are applied in an unsolicited manner, Col. 21, lines 47-49, shows decision-making system is implemented through a client-server model);

Setting a solicitation variable to a first value for each of a plurality of members of the solicitation sub-population and to a second value for each of a plurality of members of the non-solicitation sub-population, (col. 5, lines 22-40, user assisted by advocate, also shows triggering of an unsolicited opinion, in this case the solicitors and non-solicitors are distinguished through relatively large differences between one or more attribute values of proposals).

Soliciting the sub-population identified to solicit, (Col. 5, lines 57-65, using advocates to assist the user in making a decision);

Setting a purchase variable to a first value for each of the plurality of members of the solicitation and the non-solicitation sub-population that made a purchase and to a second value for each of the plurality of members of the solicitation and the non-solicitation sub-population that did not make the purchase, (col. 5, lines 48-52, shows that values are assigned to the facet, w/ col. 10, lines 26-44, shows that the upper facet contains house proposals, and the 3<sup>rd</sup> pane of the facet contains rejected choices).

Grosser et al does not specifically disclose that decision theoretic model is constructed to maximize an expected increase in profits, but does disclose a decision-making system that assists a user in making a buying purchase decision as disclosed in col. 2, line 66-col. 3, line 2.

However, Garg discloses a decision theoretic model constructed to maximize an expected increase in profits in col. 4 line 61-col. 5, line 4, modeling firm interactions by assuming that the finance divisions make coordinated decisions, maximize the firm's profits). Garg discloses this limitation in analogous art for the purpose of showing that

the finance divisions make coordinated decisions so that the Finance division allocates working capital in order to maximize the firm's profits.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a decision theoretic model constructed to maximize an expected increase in profits with the motivation of maximizing the amount of profit as a result of purchases made.

As per claim 9, Grosser et al discloses:

wherein soliciting the sub-population identified comprises e-mailing a solicitation to each of a plurality of members of the sub-population, (col. 14, lines 47-50, email).

As per claim 28, Grosser et al discloses:

A module that receives input regarding a population, (Col. 31 lines 21-25, computer readable media that accepts user input )

A decision theoretic model that determines a subset of the population to solicit with the advertising and a non-solicited sub-population...(Col. 31, lines 51-55, advocate applying choices to user, col. 32, lines 5-7, shows choices are applied in an unsolicited manner, Col. 21, lines 47-49, shows decision-making system is implemented through a client-server model);

Means for setting a solicitation variable to a first value for each of a plurality of members of the solicitation sub-population and to a second value for each of a plurality of members of the non-solicitation sub-population, (col. 5, lines 22-40, user assisted by advocate, also shows triggering of an unsolicited opinion, in this case the solicitors and

non-solicitors are distinguished through relatively large differences between one or more attribute values of proposals);

Means for setting a purchase variable to a first value for each of a plurality of members of the solicitation sub-population and to a second value for each of a plurality of members of the non-solicitation sub-population, (col. 5, lines 22-40, user assisted by advocate, also shows triggering of an unsolicited opinion, in this case the solicitors and non-solicitors are distinguished through relatively large differences between one or more attribute values of proposals).

Grosser et al does not specifically disclose that decision theoretic model is constructed to maximize an expected increase in profits, but does disclose a decision-making system that assists a user in making a buying purchase decision as disclosed in col. 2, line 66-col. 3, line 2.

However, Garg discloses a decision theoretic model constructed to maximize an expected increase in profits in col. 4 line 61-col. 5, line 4, modeling firm interactions by assuming that the finance divisions make coordinated decisions, maximize the firm's profits). Garg discloses this limitation in analogous art for the purpose of showing that the finance divisions make coordinated decisions so that the Finance division allocates working capital in order to maximize the firm's profits.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a decision theoretic model constructed to maximize an expected increase in profits with the motivation of maximizing the amount of profit as a result of purchases made.

4. Claims 2-7, 11, 13-27, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grosser et al, in further view of Garg, (US 6,044,357) as applied to claim 1 above, and further in view of Kohavi (US 6,182,058).

As per claims 2, 5-7, 11, 24, 25, 29, 30, Grosser et al discloses:

using a sample of the population to obtain values for the sample of the population for each of a solicitation variable and a purchase variable, the solicitation variable having a first value corresponding to solicitation and a second value corresponding to non-solicitation, and the purchased variable having a first value corresponding to purchase and a second value corresponding to non-purchase/constructing a decision tree, (Col. 31, lines 51-55, advocate applying choices to user, col. 32, lines 5-7, shows choices are applied in an unsolicited manner, Col. 21, lines 47-49, shows decision-making system is implemented through a client-server model), using a marginal likelihood scoring criterion, (Col. 18, lines 1-11, using qualified value);

dividing the sample of the population into a non-solicitation group and a solicitation group and setting the solicitation variable to the first value for each of a plurality of members of the solicitation group and to the second value for each of a plurality of members of the non-solicitation group (col. 5, lines 22-40, user assisted by advocate, also shows triggering of an unsolicited opinion, in this case the solicitors and non-solicitors are distinguished through relatively large differences between one or attribute values of proposals).

Soliciting the sub-population identified/applying the decision tree against the population to identify the sub-population to solicit..., (Col. 5, lines 57-65, using advocates to assist the user in making a decision);

Setting a purchase variable to a first value for each of the plurality of members of the solicitation and the non-solicitation sub-population that made a purchase and to a second value for each of the plurality of members of the solicitation and the non-solicitation sub-population that did not make the purchase, (col. 5, lines 48-52, shows that values are assigned to the facet, w/ col. 10, lines 26-44, shows that the upper facet contains house proposals, and the 3<sup>rd</sup> pane of the facet contains rejected choices).

Utilizing a component to construct a decision tree as the decision theoretic model from the sample using a predetermined scoring criterion wherein using the decision theoretic model comprises using a decision tree/applying the decision tree against the population to identify the sub-population to solicit.../constructing a decision tree...applying the decision tree..., (col. 20, lines 55-58, decision tree);

Grosser et al does not specifically disclose that decision theoretic model is constructed to maximize an expected increase in profits, but does disclose a decision-making system that assists a user in making a buying purchase decision as disclosed in col. 2, line 66-col. 3, line 2.

However, Garg discloses a decision theoretic model constructed to maximize an expected increase in profits in col. 4 line 61-col. 5, line 4, modeling firm interactions by assuming that the finance divisions make coordinated decisions, maximize the firm's profits). Garg discloses this limitation in analogous art for the purpose of showing that



the finance divisions make coordinated decisions so that the Finance division allocates working capital in order to maximize the firm's profits.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a decision theoretic model constructed to maximize an expected increase in profits with the motivation of maximizing the amount of profit as a result of purchases made.

Neither Grosser et al, nor Garg disclose the decision tree having a plurality of paths from a root node to a plurality of leaf nodes, each of the plurality of paths having a split on a solicitation variable having a first value corresponding to solicitation and a second value corresponding to non-solicitation/the decision tree having a plurality of paths from a root node to a plurality of leaf nodes, each of the plurality of paths having a last split on the solicitation variable, and each of the plurality of leaf nodes providing a value for a probability conditional on at least the purchase variable/wherein each of the plurality of leaf nodes provides a value for a probability conditional on at least the purchase variable having a first value corresponding to purchase and a second value corresponding to non-purchase/wherein identifying the sub-population to solicit further initially comprises performing an experiment using a sample of the population to obtain values for the sample of the population for each of the solicitation variable and a purchase variable, the purchase variable having a first value corresponding to purchase and a second value corresponding to non-purchase, but Grosser et al does disclose a decision-making system that triggers both solicited and unsolicited advocates in Col. 5, line 22-40.

However, Kohavi discloses:

the decision tree having a plurality of paths from a root node to a plurality of leaf nodes, each of the plurality of paths having a split on a solicitation variable having a first value corresponding to solicitation and a second value corresponding to non-solicitation/the decision tree having a plurality of paths from a root node to a plurality of leaf nodes, each of the plurality of paths having a last split on the solicitation variable, and each of the plurality of leaf nodes providing a value for a probability conditional on at least the purchase variable/wherein each of the plurality of leaf nodes provides a value for a probability conditional on at least the purchase variable having a first value corresponding to purchase and a second value corresponding to non-purchase/wherein identifying the sub-population to solicit further initially comprises performing an experiment using a sample of the population to obtain values for the sample of the population for each of the solicitation variable and a purchase variable, the purchase variable having a first value corresponding to purchase and a second value corresponding to non-purchase, (Col. 3, lines 10-16, Fig. 6 [616], where the solicit value is represented by the make route node a decision node, and the non-solicit value is represented by make route node a leaf node], col. 5, lines 48-52, shows that values are assigned to the facet, w/ col. 10, lines 26-44, shows that the upper facet contains house proposals, and the 3<sup>rd</sup> pane of the facet contains rejected choices), Kohavi discloses this limitation in an analogous art for the purpose of showing that decision nodes are used to determine a solution for certain attributes.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to utilize a decision tree with the motivation of showing that solutions that come from the decision tree can go through several paths to come up with a solution.

Neither Grosser et al, nor Garg disclose construction the decision tree comprises using a greedy approach, however Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However, Kohavi discloses:

wherein construction the decision tree comprises using a greedy approach in Fig.5, [500], in this figure, a plurality of interim leaf nodes shown in [516, 520,524, 528, and 532] are disclosed, which is a greedy approach. Kohavi discloses this approach in an analogous art for the purpose of showing an alternative approach for constructing a decision tree where many decision points will exist.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a greedy approach with the motivation of using a decision tree that will generate many decision points.

As per claim 3, neither Grosser et al, nor Garg disclose "wherein the decision tree is constructed such that the split on the solicitation variable of each of the plurality of paths is a last split",but Grosser et al does disclose a decision-making system that triggers both solicited and unsolicited advocates in Col. 5, line 22-40.

However, Kohavi discloses:

wherein the decision tree is constructed such that the split on the solicitation variable of each of the plurality of paths is a last split, (Col. 4, lines 54-67, [when test result = true, classification occurs and a label is output, this represents the last split]). Kohavi discloses this limitation in an analogous art for the purpose of showing that the last split leads to the final decision.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to construct the decision tree such that the split on the solicitation variable represents the last split with the motivation on determining a final decision on the solicitation variable in order to decide who to solicit.

As per claim 4, neither Grosser et al, nor Garg disclose "wherein the decision tree is constructed such that the split on the solicitation variable of each of the plurality of paths is a first Split", but Grosser et al does disclose a decision-making system that triggers both solicited and unsolicited advocates in Col. 5, line 22-40.

However Kohavi discloses:

wherein the decision tree is constructed such that the split on the solicitation variable of each of the plurality of paths is a first Split, (Col. 4, lines 54-67, Fig. 6, [when test result = no, the path will lead back to the beginning of the process]). Kohavi discloses this feature in an analogous art for the purpose of showing that a decision can occur at the beginning of the process.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to construct a decision tree such that the split on the solicitation

variable of each of the plurality of paths is a first split with the motivation of showing that a decision with respect to solicitation can occur at the beginning of a process.

As per claim 8, neither Grosser et al, nor Garg disclose “wherein soliciting the sub-population identified comprises mailing a solicitation to each of a plurality of members of the sub-population”, but does Grosser et al does disclose a decision-making system that triggers both solicited and unsolicited advocates in Col. 5, line 22-40.

However, Kohavi discloses:

wherein soliciting the sub-population identified comprises mailing a solicitation to each of a plurality of members of the sub-population, (Col. 1, lines 52-57, [mail sent only to people who are labeled by classifier). Kohavi discloses this limitation in an analogous art for the purpose of sending mail to a population during a campaign.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to mail a solicitation to each of a plurality of members of the sub-population with the motivation of utilizing postal services for solicitation.

As per claim 13, , neither Grosser et al, nor Garg disclose “wherein construction the decision tree comprises using a greedy approach”, but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However, Kohavi discloses:

wherein construction the decision tree comprises using a greedy approach in Fig.5, [500], in this figure, a plurality of interim leaf nodes shown in [516, 520, 524, 528, and 532] are disclosed, which is a greedy approach. Kohavi discloses this approach in

an analogous art for the purpose of showing an alternative approach for constructing a decision tree where many decision points will exist.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a greedy approach with the motivation of using a decision tree that will generate many decision points.

As per claim 14, , neither Grosser et al, nor Garg disclose "wherein the predetermined scoring criterion is a holdout criterion", but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However, Kohavi discloses:

wherein the predetermined scoring criterion is a holdout criterion, (col. 8, lines 40-42, [holdout]). Kohavi discloses this limitation in an analogous art for the purpose of showing different methods of scoring in order to make a decision.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use holdout criterion with the motivation of using holdout criterion in order to generate a score.

As per claim 15, neither Grosser et al, nor Garg disclose "wherein the predetermined scoring criterion is a cross-validation holdout criterion", but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58

However, Kohavi discloses:

wherein the predetermined scoring criterion is a cross-validation holdout criterion, (Col. 8, lines 40-42, [cross-validation]). Kohavi discloses this limitation in an analogous art for the purpose of showing different methods of scoring in order to make a decision.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use cross-validation criterion with the motivation of using cross-validation data in order to generate a score.

As per claims 16, Grosser et al discloses  
wherein the predetermined scoring criterion is a marginal likelihood criterion, (Col. 18, lines 1-11, qualified value).

As per claims 17, Grosser et al discloses  
wherein the predetermined scoring criterion is an adjusted marginal likelihood criterion, (Col. 18, lines 12-14, modified value).

As per claim 18, neither Grosser et al, nor Garg disclose "wherein the split on the solicitation variable of each of the plurality of paths is a last split", but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However Kohavi discloses:  
wherein the split on the solicitation variable of each of the plurality of paths is a last split, (Col. 4, lines 54-67, [when test result = true, classification occurs and a label is output, this represents the last split]). Kohavi discloses this limitation in an analogous art for the purpose of showing that the last split leads to the final decision.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to construct the decision tree such that the split on the solicitation variable represents the last split with the motivation on determining a final decision on the solicitation variable in order to decide who to solicit.

As per claim 19, neither Grosser et al, nor Garg disclose "initializing the decision tree with an initial single leaf node as the root node, using the greedy approach..., performing a split on the solicitation variable...", but Grosser et al. does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However Kohavi discloses:

initializing the decision tree with an initial single leaf node as the root node, (Fig. 5 [504]) ;

using the greedy approach to construct the decision tree with no splits on the solicitation variable, the decision tree after construction using the greedy approach having a plurality of interim leaf nodes', and, performing a split on the solicitation variable at each of the plurality of interim leaf nodes to generate the plurality of leaf nodes, (Fig. 5, [504], shows a plurality of leaf nodes in [516, 520, 524, 528, 532]). Kohavi discloses these limitations in an analogous art for the purpose of showing how the decision tree branches off into a plurality of decision points.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to initialize the decision tree with an initial single leaf node, to use a



greedy approach, and to perform a split on the solicitation variable with the motivation of using a decision tree that will generate many decision points.

As per claim 20, neither Grosser et al, nor Garg disclose "wherein the split on the solicitation variable of each of the plurality of paths is a first split at the root node", but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However Kohavi discloses:

wherein the split on the solicitation variable of each of the plurality of paths is a first split at the root node, (Col. 4, lines 54-67, Fig. 6, [when test result = no, the path will lead back to the beginning of the process]). Kohavi discloses this feature in an analogous art for the purpose of showing that a decision can occur at the beginning of the process.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to construct a decision tree such that the split on the solicitation variable of each of the plurality of paths is a first split with the motivation of showing that a decision with respect to solicitation can occur at the beginning of a process.

As per claim 21, neither Grosser et al, nor Garg disclose "initializing the decision tree with the first split at the root node on the solicitation variable, but Grosser et al does disclose a decision-making system that incorporates decision trees in Col. 20, lines 55-58.

However Kohavi discloses:

initializing the decision tree with the first split at the root node on the

solicitation variable, (Col. 4, lines 54-67, Fig. 5 [504], [first split to [508] and [512] occurs at the root node [504])). Kohavi discloses this feature in an analogous art for the purpose of showing that a decision can occur at the beginning of the process.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to construct a decision tree such that the split on the solicitation variable of each of the plurality of paths is a first split with the motivation of showing that a decision with respect to solicitation can occur at the beginning of a process.

using a greedy approach to finish constructing the decision tree, (Fig. 5, [504], shows a plurality of leaf nodes in [516, 520, 524, 528, 532])). Kohavi discloses these limitations in an analogous art for the purpose of showing how the decision tree branches off into a plurality of decision points.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a greedy approach with the motivation of using a decision tree that will generate many decision points.

As per claim 22, Grosser et al discloses:

Soliciting the sub-population identified, (Col. 5, lines 57-65, using advocates to assist the user in making a decision);

As per claims 23, 27, Grosser et al discloses:

wherein the method is performed by execution of a computer program by a processor from a computer-readable medium, (Col. 31, lines 18-20, computer-readable media).

As per claim 26, Grosser discloses:

wherein soliciting the sub-population identified comprises one of: calling each of a plurality of members of the sub-population, mailing a solicitation to each of the plurality of members of the sub-population, and e-mailing the solicitation to each of the plurality of members of the sub-population, (col. 14, lines 47-50, email).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grosser et al, in further view of Garg (US 6,044,357), as applied to claim 1 above, and further in view of Cooper et al (US 5,737,416).

As per claim 10, neither Grosser et al, nor Garg disclose "wherein soliciting the sub-population identified comprises calling each of a plurality or members of the sub-population", but Grosser et al does disclose a decision-making system that triggers both solicited and unsolicited advocates in Col. 5, line 22-40.

However Cooper et al discloses:

wherein soliciting the sub-population identified comprises calling each of a plurality or members of the sub-population, (col. 10, lines 3-11, telephone). Cooper discloses this limitation in an analogous art for the purpose of showing the communication means to facilitate interaction between the customer and the vendor where new customers are solicited for the sampling of new software products.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to solicit the sub-population identified by calling each of a plurality or members of the sub-population with the motivation of utilizing a common communication means to solicit customers.

***Response to Arguments***

6. Applicant's arguments filed 12/28/05 have been fully considered but they are not persuasive.

As per claims 1, 9 and 28, the applicant argues that the combination of Grosser et al and Garg does not teach or suggest each and every limitation of applicants' claimed invention. The applicant specifically argues that the section of Grosser et al cited merely states that one of the advocates may provide unsolicited advice if they see a large difference between the purchase proposals, but does not state that any variables are set for each member to indicate which members are solicited or unsolicited. However, Grosser et al teaches that user choice inputs may trigger an unsolicited advocate opinion, when the user inputs show relatively large differences in one or more attribute values in the user's "short list" of choices and new user choice inputs triggers an unsolicited advocate opinion in Col. 5, lines 33-40. In this case the user is being represented by the advocate through user choice attributes, and the user's "short list" represents the variables used to indicate which advocate will produce an unsolicited opinion. In addition, Col. 5, lines 48-52 shows that users provides value parameters for triggering an advocate response to the user. These value parameters are representative of "variables" of the present invention.

The applicant also argues that Grosser et al does not teach a user of the system sending solicitations to potential buyers and setting a purchase variable to a second value for those potential buyers that did not make a purchase as in the applicants' claimed invention, but rather teaches sending solicitations to advocates for feedback

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and does not set any solicitation variable or purchase variable for each advocate, and argues that Grosser et al is not concerned with purchase decisions of advocates, but instead gathering input from the advocates so that the user of the system can make a purchase decision. Again, as disclosed above in the preceding paragraph, Col. 5, lines 33-40 discloses a user that is being represented by the advocate through user choice attributes, and the user's "short list" represents the variables used to indicate which advocate will produce an unsolicited opinion. In this section, it is shown that users may input new user choices, which in this case, represents the second value.

Furthermore, the applicant argues that Grosser et al and Garg do not teach or suggest identifying the sub-population to solicit and a non-solicited sub-population by using a computer-implemented decision theoretic model, but rather discloses that the user of the system chooses which advocates to solicit for feedback, and discloses a model to maximize profits through management of marketing, operations, and finance activities. However, in col. 20, lines 55-62, Grosser et al discloses applying systems theory to apply the rules to the database and user information analysis engine for implementing the computer-aided decision-making system. Grosser et al also discloses that the computer-aided decision-making system is implemented using a client-server model. However, it is the combination of Grosser et al and Garg that disclose this limitation. Specifically in Garg, col. 4 line 61-col. 5, line 4 discloses modeling firm interactions by assuming that the finance divisions make coordinated decisions, and discloses maximizing the firm's profits. Garg discloses this limitation in analogous art

for the purpose of showing that the finance divisions make coordinated decisions so that the Finance division allocates working capital in order to maximize the firm's profits.

As per claims 2-8, 11, 13-27, 29 and 30, the applicant argues that the combination of Grosser et al, in further view of Garg, and further in view of Kohavi does not teach the limitations of the above claims. More particularly, the applicant argues that the combination does not teach or suggest setting the solicitation variable to the first value for each of a plurality of members of the solicitation group and setting the purchase variable to the first value for each of the plurality of members of the solicitation and the non-solicitation groups that made a purchase and to the second value for each of the plurality of members of the solicitation groups that did not make the purchase,...and applying the decision tree against the population to identify the sub-population to solicit to maximize the expected increase in profits. However, the applicant argues these claims for reasons similar to those of claim 1, and the rejection of these claims are therefore maintained for the same reasons as discussed above with respect to claim 1.

As per claim 10, the applicant argues that the combination of Grosser et al, in further view of Garg, and further in view of Cooper fails to disclose the limitations of claim 10 for reasons similar to those of claim 1. The rejection of claim 10 is therefore maintained for reasons similar to those of claim 1.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

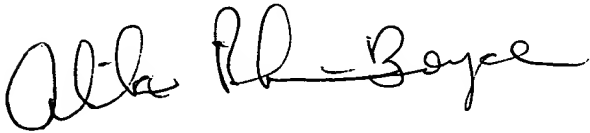
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 571-272-6734. The examiner can normally be reached on Monday-Tuesday 8:30am-5pm, and Wednesday, 8:30 am-12:30 pm.

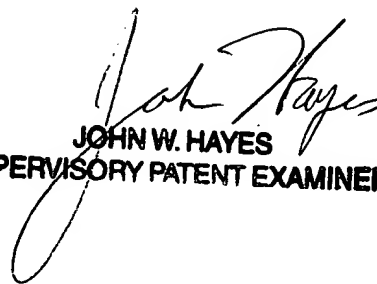
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7238 [After final communications, labeled "Box AF"], 703-746-7239 [Official Communications], and 703-746-7150 [Informal/Draft Communications, labeled "PROPOSED" or "DRAFT"].

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

A handwritten signature in cursive script, appearing to read "A. R. B. Boyce".

A. R. B.  
February 28, 2006

A handwritten signature in cursive script, appearing to read "John W. Hayes".  
**JOHN W. HAYES**  
**SUPERVISORY PATENT EXAMINER**